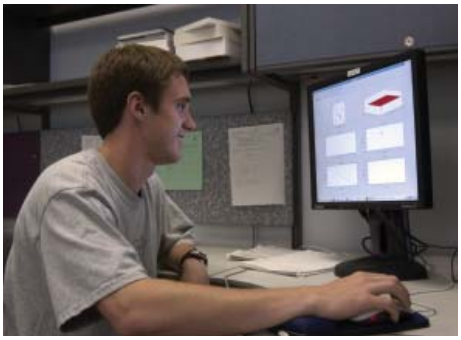
Ames Laboratory
Ames, Iowa



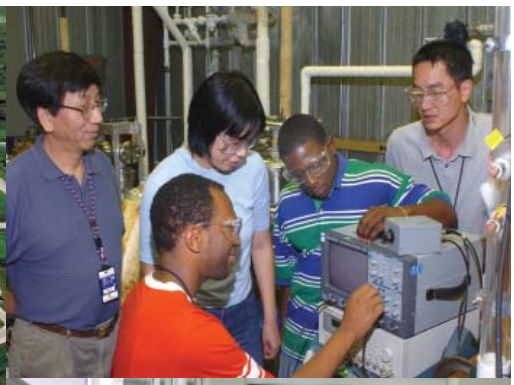
Scientists at the Department of Energy Office of Science's Ames Laboratory seek solutions to energy-related problems through the exploration of chemical, engineering, materials and mathematical sciences, and physics.

Established in the 1940s with the successful development of the most efficient process to produce high-purity uranium metal for atomic energy, Ames Lab now pursues much broader priorities than the materials research that has given the Lab international credibility.

Responding to issues of national concern, Lab scientists are actively involved in innovative research, science education programs, the development of applied technologies, and the quick transfer of such technologies to industry. Uniquely integrated within a university environment, the Lab stimulates creative thought and encourages scientific discovery, providing solutions to complex problems and educating tomorrow's scientific talent.

Ames Laboratory is located in Ames, Iowa, on the campus of Iowa State University. Iowa State's 2,000-acre, park-like campus is home to more than 25,000 students. Ames is approximately 30 minutes north of Des Moines, Iowa's capital city.

Argonne National Laboratory
Argonne, Illinois



Argonne National Laboratory descends from the University of Chicago's Metallurgical Laboratory, part of the World War Two Manhattan Project. The laboratory has about 2,900 employees, including about 1,000 scientists and engineers. Argonne occupies 1,500 wooded acres in DuPage County, Illinois, about 25 miles southwest of Chicago's Loop. Argonne research falls into broad categories:

- Basic science seeks solutions to a wide variety of scientific challenges. This includes experimental and theoretical work in biology, chemistry, high energy and nuclear physics, materials science, and mathematics and computer science.
- Scientific facilities help advance America's scientific leadership and prepare the nation for the future. These facilities are used by scientists thousands of scientists and students from the U.S. and abroad. The laboratory is also home to the Advanced Photon Source, the Center for Nanoscale Materials, the Intense Pulsed Neutron Source, and the Argonne Tandem Linear Accelerator System.
- Energy resources programs help insure a reliable supply of efficient and clean energy for the future. Argonne scientists and engineers are developing advanced batteries and fuel cells, as well as advanced electric power generation and storage systems.
- Environmental management includes work on managing and solving the nation's environmental problems and promoting environmental stewardship.
- National Security has increased in significance in recent years for the nation and for Argonne research. Argonne capabilities developed over the years for other purposes are helping to counter the threats of terrorism.

Argonne's Division of Educational Programs provides workforce development for faculty and students from universities to regional K-12 schools.

Brookhaven National Laboratory
Upton, New York

Established in 1947, Brookhaven National Laboratory is a Department of Energy, Office of Science multidisciplinary laboratory managed by Brookhaven Science Associates, a company founded by Battelle and Stony Brook University. Home to six Nobel Prizes, Brookhaven conducts research in the physical, biomedical, and environmental sciences, as well as in energy technologies and national security.

Located on a 5,300-acre site on eastern Long Island, New York, Brookhaven builds and operates major scientific facilities available to university, industry and government researchers. Among those facilities are the world's newest accelerator for nuclear physics research, the Relativistic Heavy Ion Collider (RHIC), and the National Synchrotron Light Source (pictured here) where approximately 2,500 researchers use beams of light, from x-rays to ultraviolet and infrared, to study materials as diverse as computer chips and proteins. In the near future, the Center for Functional Nanomaterials will be built at Brookhaven, one of five Department of Energy centers where researchers will study materials on the scale of a billionth of a meter, or only a few atoms.

A wide variety of both basic and applied research is conducted at Brookhaven. For instance, scientists are investigating the building blocks of matter using RHIC, the roots of drug addiction and brain metabolism using positron emission tomography, the effects of space radiation on astronauts using the newly built NASA Space Radiation Laboratory, and the effects of increased carbon dioxide in ecosystems. Brookhaven researchers also develop new technologies as varied as detectors for national security and oil burners with improved efficiency.

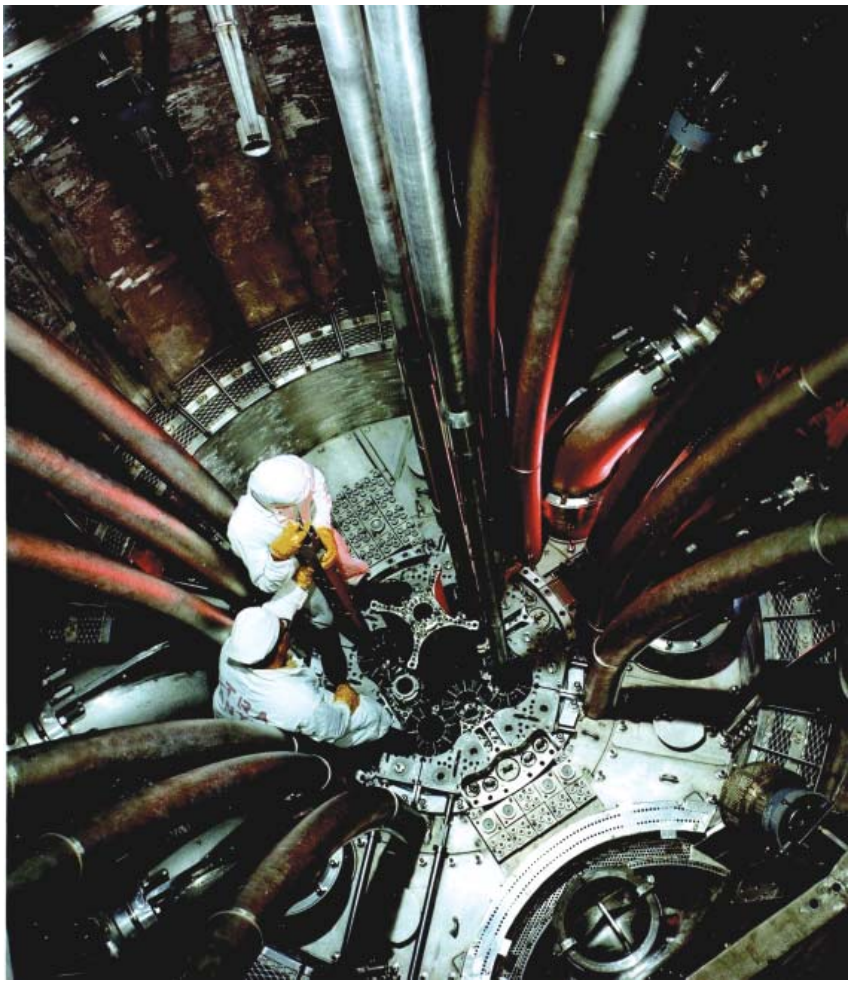
Fermi National Accelerator Laboratory
Batavia, Illinois

Fermi National Accelerator Laboratory (Fermilab) is one of the world's foremost laboratories dedicated to high-energy physics research. It is operated for the Department of Energy Office of Science by a consortium of 90 research-oriented universities. More than 3,000 scientists from around the world use Fermilab for their experiments.

Fermilab is located on a 6,800-acre site about 35 miles west of Chicago, Illinois. The laboratory is home to the Tevatron Collider, the world's highest-energy particle accelerator. Two large detectors analyze the Tevatron's proton-antiproton collisions to unveil the fundamental forces and particles of the universe. Scientists at Fermilab discovered the bottom quark and the top quark, and first observed the tau neutrino.

Fermilab operates the world's most powerful proton beam for creating neutrinos. The Center for Particle Astrophysics at Fermilab includes groups studying cosmic rays, supernovae, dark energy and other phenomena.

Idaho National Laboratory
Idaho Falls, Idaho

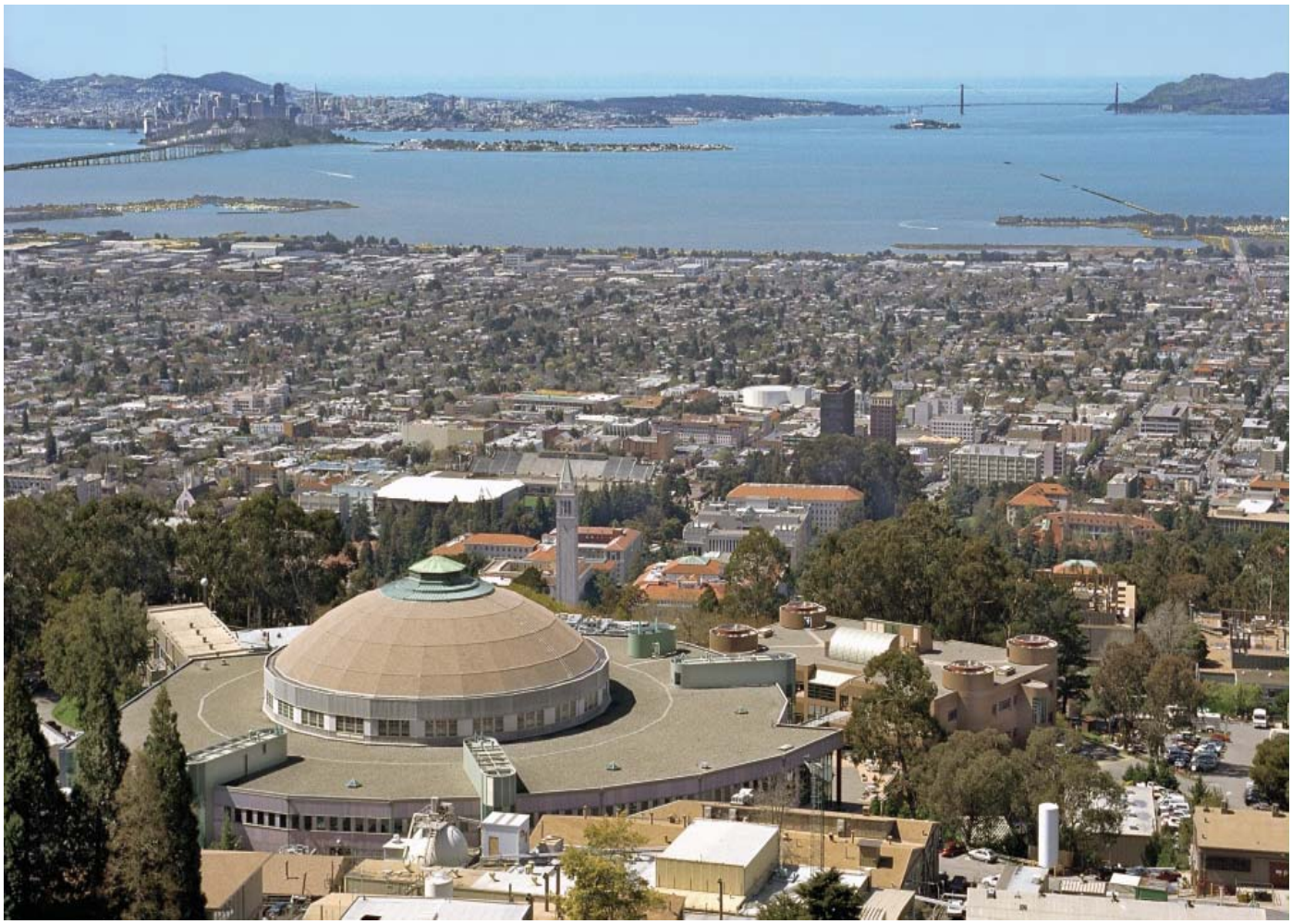


In operation since 1949, The Idaho National Laboratory (INL) is a science-based, applied engineering National Laboratory dedicated to supporting the U.S. Department of Energy's missions in nuclear and energy research, science, and national defense.

INL stands out as a unique national and international resource. Notably, the Lab has been formally designated as the nation's command center for advanced civilian nuclear technology research and development, and is home to the unparalleled Critical Infrastructure Test Range, with assets as diverse as an isolable electric grid and wireless test bed. Leveraging these and numerous other distinguishing features, the Lab and its more than 3,300 scientists, engineers and support personnel build on the potential and promise of the theoretical for the benefit of the real world.

Located in southeast Idaho, INL covers 890 square miles of the Snake River Plain between Idaho Falls and Arco, Idaho. Offices and laboratories are also in the city of Idaho Falls (population 50,000), located about two hours from Grand Teton and Yellowstone national parks and other areas offering prime recreational opportunities.

Lawrence Berkeley National Laboratory
Berkeley, California



Lawrence Berkeley National Laboratory's (LBNL) research and development includes new energy technologies and environmental solutions with a focus on energy efficiency, electric reliability, carbon management and global climate change, and fusion. Frontier research experiences exist in nanoscience, genomics and cancer research, advanced computing, and observing matter and energy at the most fundamental level in the universe.

Ernest Orlando Lawrence founded the Berkeley Lab in 1931. Lawrence is most commonly known for his invention of the cyclotron, which led to a Golden Age of particle physics—the foundation of modern nuclear science—and revolutionary discoveries about the nature of the universe. Berkeley Lab's Advanced Light Source is its premier national user facility centrally located on the lab site overlooking the San Francisco Bay.

Lawrence Livermore National Laboratory
Livermore, California

Lawrence Livermore National Laboratory (LLNL) applies cutting-edge science and engineering to enhance the nation's security. When LLNL was founded in 1952, the consuming national security concern was the nuclear arsenal of the Soviet Union and, for years, our energies, talents and resources were focused on that threat. Today, new perils have arisen that are radically different and vastly more complex, and we are directing our world-class scientific and technological resources against these threats. Assuring the safety, security, and reliability of the nation's nuclear weapon stockpile continues to be the foremost responsibility of LLNL. We are also pushing the frontiers of science and technology to make breakthroughs that will be enable us to meet future needs in national and global security, energy and environment, and economic competitiveness.

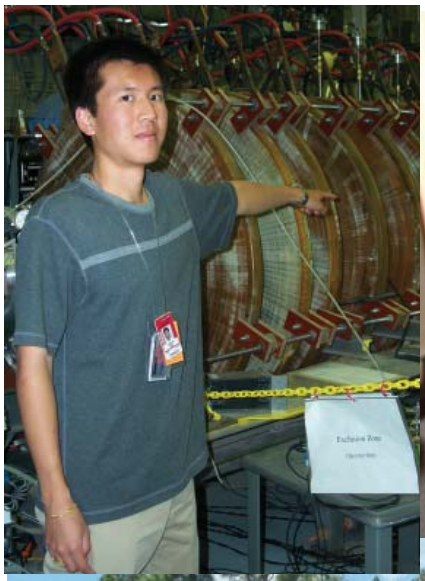
LLNL is home to some of the world's most powerful supercomputers, including BlueGene/L, first on the TOP500 list of supercomputers with a sustained world-record speed of 478.2 teraflops. LLNL also supports unique experimental facilities, including the Center for Accelerator Mass Spectrometry, the High Explosives Applications Facility, and the 192-beam National Ignition Facility, which is the world's largest laser system. Our researchers typically work in multi-disciplinary teams, where experts in physical and life sciences, engineering, and computations collaborate to devise and demonstrate solutions to nationally important problems.

LLNL offers numerous opportunities for outstanding scholars and postdoctoral fellows to complement their academic endeavors and enable them to work on exciting areas of research using our advanced experimental facilities and computing resources. Laboratory scientists, many of whom are leading experts in their fields, guide and collaborate with student researchers and have earned numerous commendations as outstanding mentors.

On the local level, the Laboratory offers a wide array of student science enrichment and teacher development programs tied to LLNL science and technology that benefit more than 25,000 K-12 students and teachers each year. Programs include college-accredited teacher research academies and research internships, community science lectures, a science and engineering project competition, tours for school groups, and special educational outreach events.

LLNL is located on a mile-square site at the eastern edge of the Livermore Valley, roughly an hour from San Francisco, two hours from the Pacific Ocean, and three hours from the Sierra Nevada mountains. The Laboratory is managed for the Department of Energy's National Nuclear Security Administration by Lawrence Livermore National Security LLC, a consortium of Bechtel National, University of California, Babcock & Wilcox, Washington Division of URS Corporation, and Battelle.

Los Alamos National Laboratory
Los Alamos, New Mexico



The Los Alamos National Laboratory (LANL), located in the Jemez Mountains of northern New Mexico, offers the opportunity for students to work at a multi-disciplinary, world-class research facility while enjoying a truly unique environment. Long known for its artistic community, northern New Mexico also offers a variety of exciting outdoor recreational opportunities, including rock climbing and hiking in the adjacent mountains and canyons, proximity to the Rocky Mountains, and exceptional skiing opportunities at many nearby locations.

We offer a diverse research experience for undergraduate and graduate students as a means of assuring the continued vibrancy of the science, engineering, and technology at the laboratory. Serve your internship with us and you will have the opportunity to work in a team environment with some of the world's top scientists and engineers on critical issues involving our national security, environment, infrastructure, and security. We offer internship opportunities in areas that include: Biology, Chemistry, Computer Science, Physics, Mathematics, Materials Science, Environmental Science, and Engineering: Chemical, Civil, Computer, Electrical, Mechanical, Nuclear, and Software.

If you are a problem solver and independent thinker, a team player, a good communicator, like a hands-on approach, and are self-motivated, we offer you the challenge of an internship at Los Alamos National Laboratory.

National Renewable Energy Laboratory
Golden, Colorado

Habitat House

The National Renewable Energy Laboratory (NREL) is the Department of Energy's primary National Laboratory for renewable energy and energy efficiency research and development. From harvesting energy from the sun and wind, to advancing automotive systems, to developing biodegradable plastics from corn stalks, NREL develops renewable energy and energy efficiency technologies and practices, advances related science and engineering, and transfers research knowledge and innovations to address the nation's energy and environmental goals. NREL takes its research to the community through projects such as building Zero Energy Habitat for Humanity Homes, education outreach, teacher workshops and sponsoring interns.

NREL research has been recognized with 40 R&D 100 Awards, ranking first among National Laboratories per researcher, as well as numerous honors from R&D, Discover, and Popular Science magazines and leading scientific organizations. Scientist mentors work with over 200 interns annually in developing the future workforce.

Innovative, challenging and dynamic—that's our culture. If you are interested in a research internship with an institution that believes creativity and individual uniqueness is at the core of our success, then explore your options at: www.nrel.gov. We value intern talent that adds to the rich pool of research findings produced by NREL each year. Intern accomplishments include:

- More than 27 students have been selected by the Office of Science to present major NREL research at the AAAS.
- More than 50 past student interns have been hired on to join the NREL family.
- Teacher researchers have produced over 50 renewable energy lessons for the classroom. Two student/scientist patents have evolved from internships.
- NREL's Office of Education Programs partners with over 75 universities through-out the nation.

NREL's main 327-acre site is in Golden, Colorado, just west of Denver. The Laboratory also operates the National Wind Technology Center on 307 acres about 20 miles north of Golden, adjacent to the Department of Energy's Rocky Flats Environmental Test Site. We are an equal opportunity employer committed to diversity.

Oak Ridge National Laboratory
Oak Ridge, Tennessee

Oak Ridge National Laboratory (ORNL) is the Department of Energy's largest science and energy laboratory. Managed since April 2000 by a partnership of the University of Tennessee and Battelle, ORNL was established in 1943 as part of the secret Manhattan Project to pioneer a method for producing and separating plutonium. Today ORNL has a research portfolio in excess of $1.3 billion, a staff of more than 4,200 and approximately 3,000 guest researchers (undergraduates, graduate students, postgraduates, teachers, and faculty) who spend two weeks or longer each year in Oak Ridge. The recently completed $1.4 billion Spallation Neutron Source, located adjacent to the new Center for Nanophase Materials Sciences, is rapidly making Oak Ridge one of the world's foremost locations for the study of materials. ORNL's National Leadership Computing Facility now houses the world's most powerful open science supercomputer and soon will house a computer capable of a mind-boggling 1,000 trillion calculations per second. Each of these facilities will work closely with ORNL's new Bioenergy Science Center, funded by DOE to develop breakthrough technologies for cellulosic ethanol.

Since 2000, UT-Battelle has provided more than $8 million in support of math and science education, economic development, and corporate volunteerism in the greater Oak Ridge region as well as various civic, cultural and public awareness activities related to the Department of Energy's mission.

Pacific Northwest National Laboratory
Richland, Washington

Pacific Northwest National Laboratory (PNNL), on the sunny eastern side of Washington State, is one of the U.S. Department of Energy's (DOE) ten national laboratories, managed by DOE's Office of Science. PNNL also performs research for other DOE offices as well as government agencies, universities, and industry to deliver breakthrough science and technology to meet today's national needs. PNNL is home to the William R. Wiley Environmental Molecular Sciences Laboratory, a DOE Office of Science national science user facility. PNNL also operates a marine research facility in western Washington.

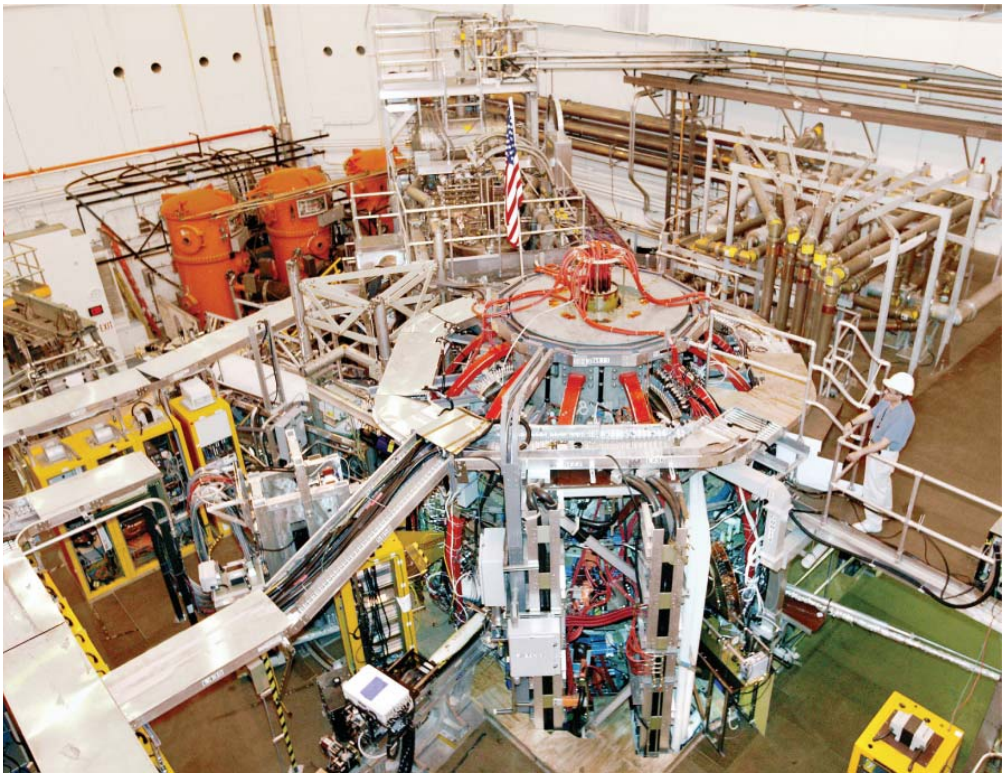
Our Laboratory 1) provides the facilities, unique scientific equipment, and world-renowned scientists/engineers to strengthen U.S. scientific foundations for fundamental research and innovation; 2) prevents and counters acts of terrorism through applied research in information analysis, cyber security, and non-proliferation of weapons of mass destruction; 3) increases U.S. energy capacity and reduces dependence on imported oil through research of hydrogen and biomass-based fuels; and 4) reduces the effects of energy generation and use on the environment.

We champion science, technology, engineering and mathematics (STEM) education from "grade school to grad school" in order to support the "college and workforce ready" agenda of the Nation, DOE, our region and local communities. We help to develop and educate the scientists and engineers of tomorrow. We strive to impact STEM education by acting as a catalyst for sustainable positive change on national, regional and local levels. This includes providing thought leadership, creating business-in education partnerships, participating in scalable initiatives, and advancing the progress of existing programs that have proven results, but require additional resources and partnerships to broaden their impact.

The Laboratory consistently attracts some of the world's leading scientific talent and engages them in our education programs. Student research opportunities at PNNL include, but are not limited to, appointments in atmospheric science and global change, computational sciences, experimental chemistry, marine sciences, molecular biology, environmental studies, remediation, environmental microbiology, wildlife and fisheries biology, materials research, process science and engineering, economics and political science.

PNNL is located at the confluence of the Columbia, Snake and Yakima rivers within driving distance of the Blue and Cascade mountain ranges. The region is known for year round outdoor recreational opportunities, fine wines, and the community's commitment to the arts.

Princeton Plasma Physics Laboratory
Princeton, New Jersey



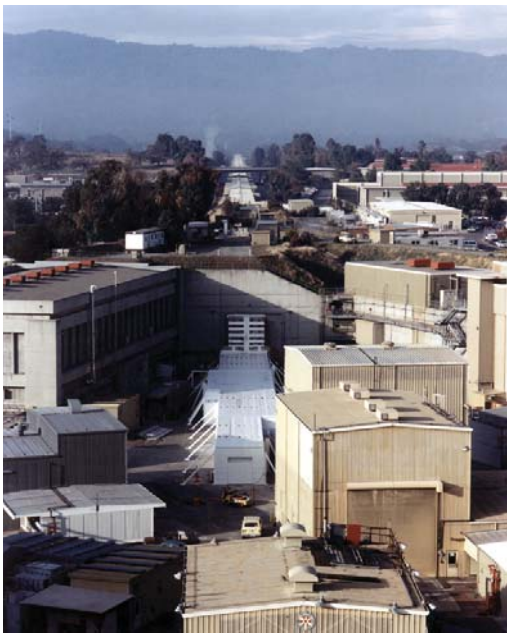
The world's reliance on fossil fuels is imperiling our environment. Fusion, the energy source of the sun and the stars, offers an inexhaustible alternative. A fusion-powered electric generator would not produce hydrocarbon emissions, greenhouse gases, or long-lived radioactive waste; nor would it emit chemicals that cause acid rain. Consequently, the U.S. Department of Energy (DOE) Office of Science has made the development of commercial fusion power one of its highest priorities.

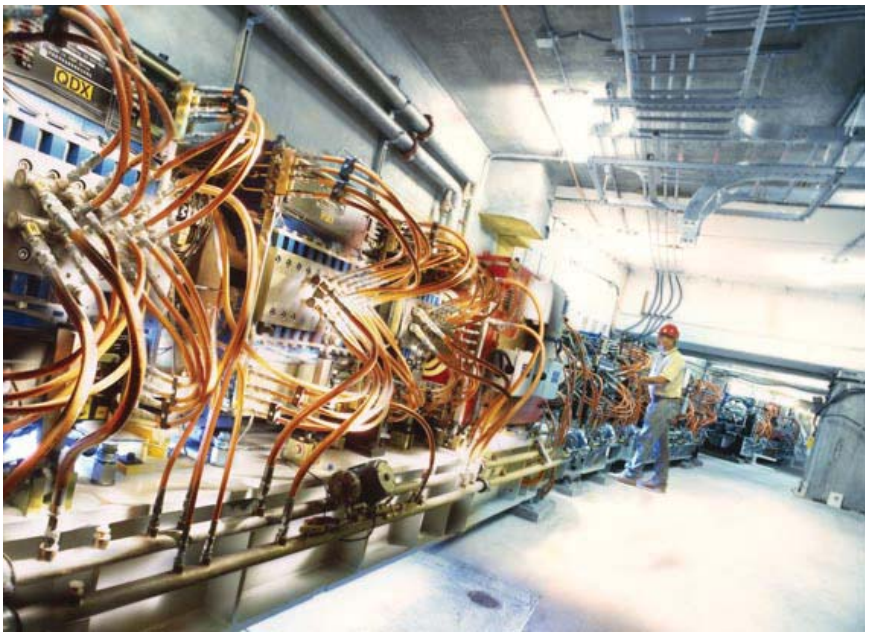
DOE's Princeton Plasma Physics Laboratory (PPPL) is one of the world's leading facilities for fusion R&D. Currently the PPPL is operating the National Spherical Torus Experiment (pictured above) and is building the National Compact Stellarator Experiment, both use magnetic fields to confine hot ionized gas (plasma) that serves as the fusion fuel. PPPL's theoretical physicists are developing computational physics models that can predict how various plasma configurations will perform, saving time and money.

PPPL experimental physicists collaborate with their colleagues worldwide in a free, mutually beneficial, exchange of information. Princeton researchers and engineers are using knowledge and skills gained in fusion research to solve other problems, including the development of plasma-based propulsion systems for space vehicles, studies of plasma phenomena that occur in the sun's corona and the earth's magnetosphere, and support for research on the development of smart materials for artificial muscles.

PPPL is located about three miles from Princeton University's main campus in Princeton, NJ. The Laboratory interacts with the nearby community through its tour program, speakers bureau, and most extensively through its Science Education Program (SEP). The goal of the PPPL SEP is to combine the core research activities of PPPL with science education programs to create a center of excellence for students and teachers. To achieve its goals, the SEP strives to: (1) contribute to the training of the next generation of scientists and engineers, (2) collaborate with K–12 teachers on ways to improve science teaching using an inquiry-based approach to learning, and (3) improve the scientific literacy of the community at large. These initiatives, led by SEP staff in conjunction with PPPL volunteers, master teachers, and local education experts, create significant learning opportunities for undergraduate college students and K–12 teachers and students.

Stanford Linear Accelerator Center
Menlo Park, California





The Stanford Linear Accelerator Center (SLAC) is one of the world's leading laboratories for research in high-energy physics (HEP), particle astrophysics and cosmology, and synchrotron radiation research.

SLAC's HEP program seeks answers to fundamental questions about the ultimate structure of matter and the forces between these fundamental particles. The BABAR experiment investigates matter/anti-matter asymmetry and is the current focus of the HEP program. In addition, a vigorous R&D program is focused on realizing the next generation electron collider — the International Linear Collider, as part of a world-wide effort.

The Kavli Institute at SLAC for Particle Astrophysics and Cosmology bridges theoretical and experimental physics communities, and brings their combined strengths to bear on some of the most challenging and fascinating problems in particle astrophysics and cosmology to help us understand the birth and evolution of the universe.

The Stanford Synchrotron Radiation Laboratory (SSRL) at SLAC, provides high intensity x-ray beams for molecular and atomic scale studies in physics, biology, chemistry, medicine, and environmental science. The Linac Coherent Light Source (LCLS), a facility to provide even more intense x-ray capability is now under construction. Pioneering experiments at LCLS will advance our understanding of everything from the hidden physics inside planets, to how proteins function as the engines of life, to building nanotechnology devices for the backbone of future industry and technology.

Thomas Jefferson National Accelerator Facility
Newport News, Virginia

The Thomas Jefferson National Acceleration Facility, or Jefferson Lab, is a nuclear physics research laboratory located in Newport News, Virginia. Nuclear physics research scientists who use Jefferson Lab are on a journey of discovery into the nucleus of the atom. Their goal is to develop a roadmap of matter that helps unlock the secrets of how the universe is put together. Nuclear physics funding from the Department of Energy provides Jefferson Lab with leading-edge instrumentation, world-class facilities and training and support for the people involved in these pursuits. Forefront nuclear physics research conducted at Jefferson Lab provides solid foundations for other fields. The accumulation of new results and the intellectual training of new generations of scientists foster important advances in medicine, chemistry and other sciences.

Scientists at Jefferson Lab use the Continuous Electron Beam Accelerator Facility — the first large-scale application of superconducting radiofrequency technology — to conduct physics experiments. Using accelerated electron beams, experimenters probe the sub-nuclear realm. Using this same technology, Jefferson Lab has built the world's brightest high average power Free Electron Laser that offers unique capabilities for defense, industry, basic research and medicine.